Work Order ID 100038

April 17, 2013 7:49:11 AM

100038

Item ID: D3186-2M

Revision ID:

Item Name: SPACEPOD DOOR RH

Start Date: 4/17/13 **Start Qty:** 1.00 *1*

Required Date: 5/10/13 **Req'd Qty:** 1.00 *1*

Reference:

Accept *N900040100*

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: **Process Plan:** CL **Date:** 13/04/17 **Tooling:** **Date:**

QC: **Date:** **SPC (Y/N):** **Date:**

Run Start *NR1*

Stop *NR2*

Work Center ID	Description	Run Hours	Accept Qty	Reject Qty	Reject Number	Stamp

Draw Nbr	Revision Nbr
D3186	Rev E

100 0.00

100

Purchasing

Purchasing

PURCHASING

CL 13/04/17

Memo 0.00

Issue P/O: 19599
Description:D3186-2MDoor
Supplier: Delastek
Conformity Certificate and Process sheet required
Ship 3 Items from Previous steps

110 Receive & Inspect for Damage & Mat'l Certs 0.00

110

Packaging

Packaging

13.09.11

Memo 0.00

Ensure a copy of certification of conformity and process sheet from Delastek is attached.

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped.
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

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Work Order ID 100038

April 17, 2013 7:49:11 AM

100038

Item ID: D3186-2M **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: SPACEPOD DOOR RH

Start Date: 4/17/13 **Start Qty:** 1.00 *1*

Required Date: 5/10/13 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID / Work Center ID	Operation Description	Set Up / Run Hours	ID	Rev. #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	**Memo**	0.00							
Quality Control	Check for void spot and pins.								
						0		13.09.11	
130	Identify as per dwg & Stock Location:_____	0.00							
130									
Packaging	**Memo**	0.00							
Packaging									
						0		13.09.11	
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	**Memo**	0.00							
Quality Control									
								13/9/13	

MB 09-13

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Picklist Print

April 17, 2013 7:49:11 AM

Work Order ID: 100038

Parent Item: D3186-2M

Parent Item Name: SPACEPOD DOOR RH

Start Date: 4/17/13 **Required Date:** 5/10/13

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev:A New Issue 06-12-04 ec
IPP rev D rv D dwg 07.03.07 ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3186-2P Spacepod Door		Purchased	No			110	Each	0.0000	1	1	1	5/3/13	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

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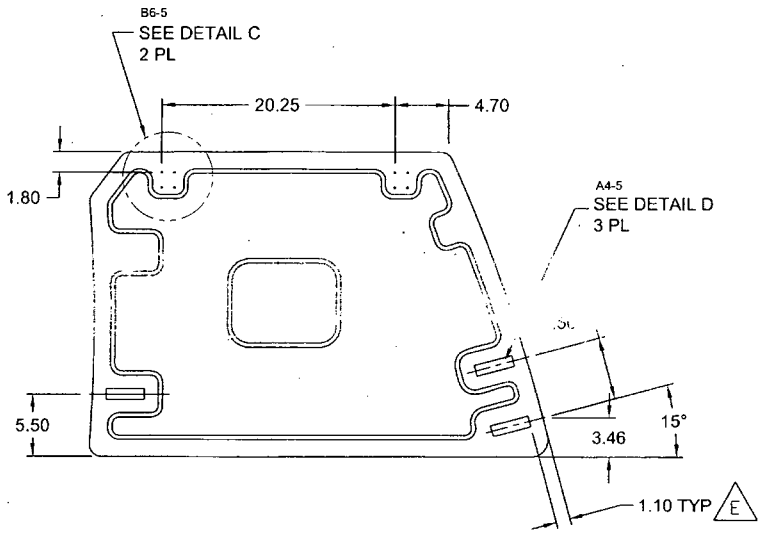
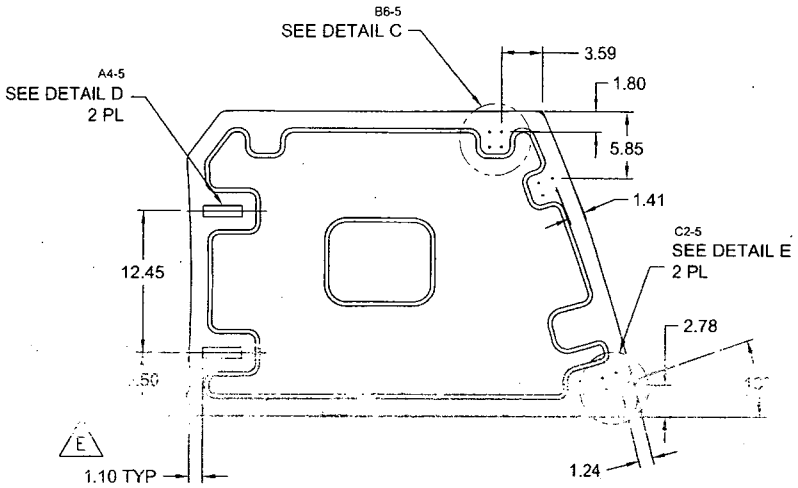


D3186-1 SPACEPOD DOOR, LH
MAKE FROM D3186-1M



D3186-3 SPACEPOD DOOR, LH
MAKE FROM D3186-1M

RELEASED
2009 -09- 09

C2 13/04/17
W10: 100038

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: N/A

REV.	DESCRIPTION	BY	DATE
E	DRAWING UPDATED TO CURRENT STANDARDS. 1.10 WAS 0.98 (ZN B5-1, B4-1, B7-2, B1-2); R0.12 WAS 0.125 (ZN B5-5); REF PAR 09-026	RF	09.07.08
D	UPDATE DIMENSIONS	LE	07.02.22
C	REMOVED D0600-XXX LABELS	LE	06.12.13
B	DIMS UPDATED TO MATCH PRODUCT FOAM PATTERN UPDATED D3186-1M/-2M/-3/-4 ADDED	LE	06.09.25
A	NEW ISSUE	CP	03.03.27

DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3186	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SPACEPOD DOOR	NTS
DATE	09.07.08		

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

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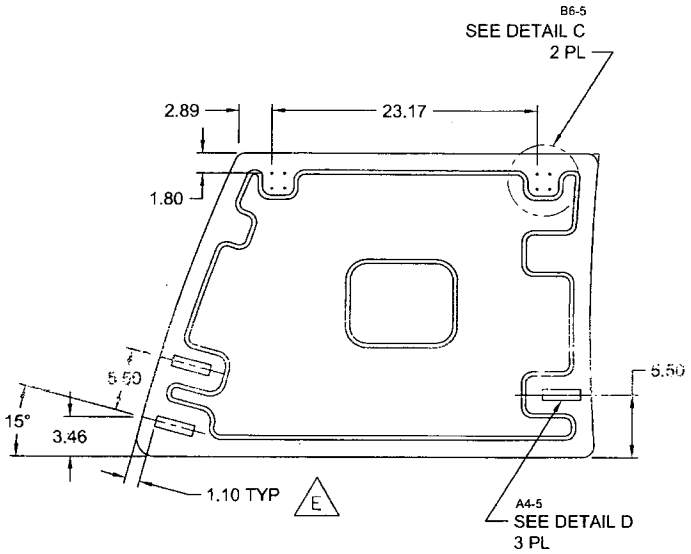
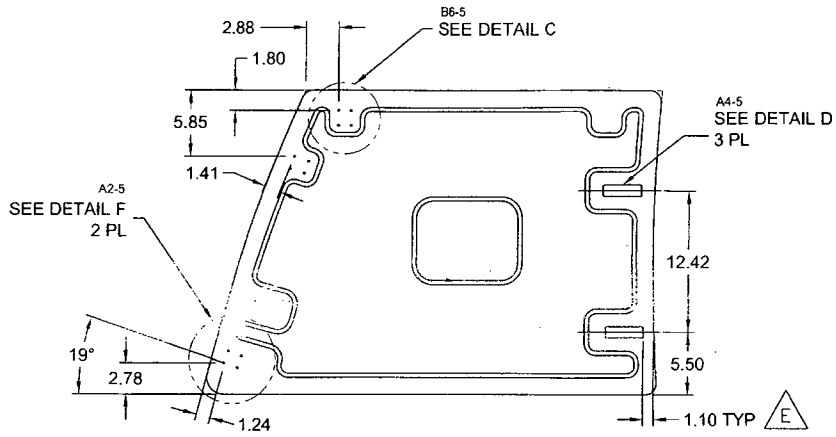


D3186-2 SPACEPOD DOOR, RH
MAKE FROM D3186-2M



D3186-4 SPACEPOD DOOR, RH
MAKE FROM D3186-2M

RELEASED
2009 -09- 09

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: N/A

DESIGN	OS	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. D3186 — REV. E — SHEET 2 OF 5
MFG. APPR.		
APPROVED		TITLE: SPACEPOD DOOR — SCALE: NTS
DE APPR.		
DATE	09.07.08	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

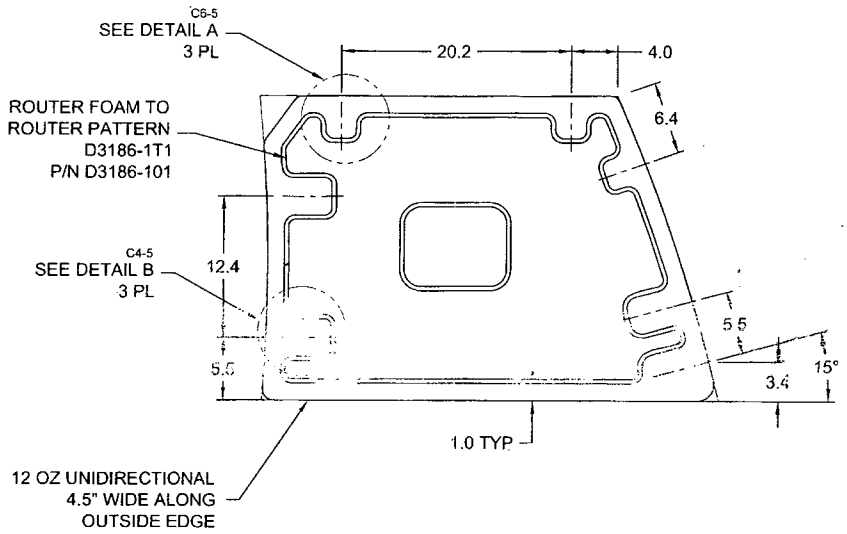
- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

MAIN LAYUP
9 OZ SATIN (9 SQ FEET)
9 OZ SATIN (9 SQ FEET)
FOAM
9 OZ SATIN (9 SQ FEET)
12 OZ UNIDIRECTIONAL
9 OZ SATIN (9 SQ FEET)
RESIN (35-45% BY WEIGHT)
PEEL PLY



D3186-1M SPACEPOD DOOR AS MOLDED

RELEASED
2009 -09- 08

NOTES:
1) MATERIAL:
RESIN = EPOCAST 50-A/9816 OR DERAKANE 470-36/411/510A40
FOAM = 3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECELL
FIBRE = 9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")
12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")
LAMINATE PER DART QSI 006 4.0
LAMINATION SCHEDULE PER THIS DRAWING
2) FINISH: FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 7.0 lbs
8) USE MOLD DT8005 FOR DOOR LAYUP

DESIGN	DS	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. D3186 — REV. E — SHEET 3 OF 5
MFG. APPR.		
APPROVED		TITLE: SPACEPOD DOOR — SCALE: NTS
DE APPR.		
DATE	09.07.08	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

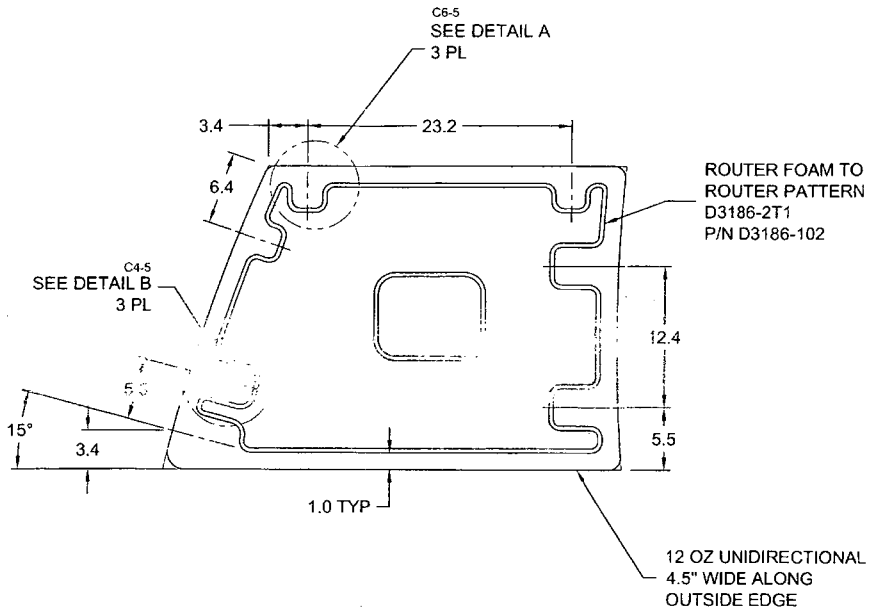
- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

MAIN LAYUP
9 OZ SATIN (9 SQ FEET)
9 OZ SATIN (9 SQ FEET)
FOAM
9 OZ SATIN (9 SQ FEET)
12 OZ UNIDIRECTIONAL
9 OZ SATIN (9 SQ FEET)
RESIN (35-45% BY WEIGHT)
PEEL PLY



RELEASED
2009 -09- 09

D3186-2M SPACEPOD DOOR AS MOLDED

NOTES:
1) MATERIAL:
RESIN = EPOCAST 50-A/9816 OR DERAKANE 470-36/411/510A40
FOAM = 3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECELL
FIBRE = 9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")
12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")
LAMINATE PER DART QSI 006 4.0
LAMINATION SCHEDULE PER THIS DRAWING
2) FINISH: FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 7.0 lbs
8) USE MOLD DT8006 FOR DOOR LAYUP

DESIGN	DS	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. D3186 REV. E SHEET 4 OF 5
MFG. APPR.		
APPROVED		TITLE SPACEPOD DOOR SCALE NTS
DE APPR.		
DATE	09.07.08	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

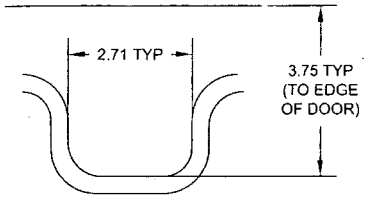
General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

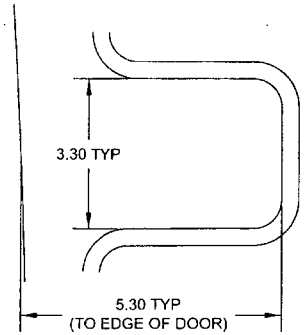
_____

_____

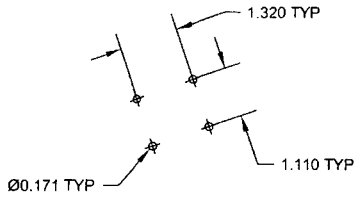
_____



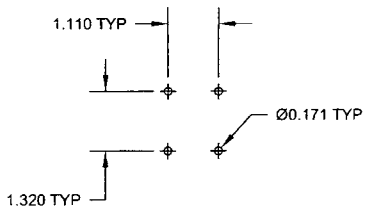
DETAIL A D6-3 D4-4
SCALE 4X



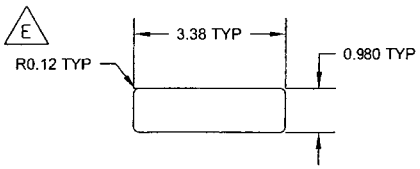
DETAIL B C6-3 C6-4
SCALE 4X



DETAIL E C1-1
SCALE 4X

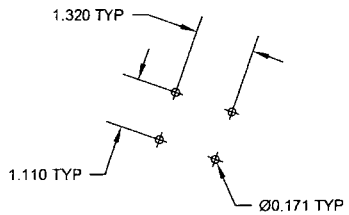


DETAIL C D7-1 D3-1 D6-2 D3-2
SCALE 4X



NOTE: ENSURE THAT CUTOUT IS
PERPENDICULAR TO EDGE OF DOOR

DETAIL D C5-1 D4-1 B6-2 C2-2
SCALE 4X



DETAIL F C4-2
SCALE 4X

RELEASED
2009 -09- 09

DESIGN	DS	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3186	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SPACEPOD DOOR	NTS
DATE	09.07.08		

DART AEROSPACE

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19599

Purchase Order Date 4/17/13
PO Print Date 4/17/13

Order From : VU-DEL003

DELASTEK INC
2699 5E AVENUE, LOCAL C.P 10100

GRAND-MERE, QC G9T 5K7
CA

Contact Name		**Buyer**	Chantal Lavoie
Vendor Phone	819 533 5788	**Requisition Nbr**	
Vendor Fax	819 533 3494	**Tax Resale Nbr**	10127-2607
Vendor Account Nbr		**Terms**	Net 30
		Currency	USD
		FOB	Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED 04/30/13

Line Nbr	Reference / Revision ID / Vendor Part Number	Description / Mfg ID	Req Date / Taxable	Req Qty / Unit of Measure	Ship Method	Unit Price	Extended Price
1	D3186-2P	Spacepod Door	5/10/13 Yes	1.00 Each	FedEx PI collect	$711.0000	$711.00
		Special Inst.	AS PER DWG D3186 REV. E B100038				
2	D3186-2P	Spacepod Door	5/10/13 Yes	1.00 Each	FedEx PI collect	$711.0000	$711.00
		Special Inst:	AS PER DWG D3186 REV. E B100041				

PO Total: **$1,422.00**

CERTIFICATE OF CONFORMITY REQ'D UPON DELIVERY

MATERIAL CERTIFICATION REQ'D UPON DELIVERY

No substitution or deviation without consent.
Certificate of Conformity or Material Certification required - YES NO

Change Nbr: 1 **Change Date:** 4/17/13

Mastering Innovation

DELASTEK

DELASTEK Inc.
2699 5e Avenue
Local 14, C.P. 10100
Grand-Mère, Québec G9T 5K7
Canada
Tel.: (819) 533-5788
Fax: (819) 533-3494

PACKING SLIP

CERTIFICATE OF COMPLIANCE

Invoice No.	48495
Customer No.	DART US

Bill To
DART AEROSPACE LTD 1270, Aberdeen Street Hawksbury, Ontario K6A 1K7 Canada **Telephone :** 613-632-5200 **Contact :** Linda Lacelle

Ship To
DART AEROSPACE LTD 1270, Aberdeen Street Hawksbury, Ontario K6A 1K7 Canada **Telephone :** 613-632-5200 **Contact :** Linda Lacelle

DELASTEK 53

Ship Date	Order Date	Our SO #	Ordered by	Your PO#	Terms
21-06-2013	22-04-2013	23381	Brigitte Golden	19599	Net 30 days USA

Ship Via	F.O.B.	Salesperson	GST/PST
FEDEX P1 Collect	Point de départ	Mathieu Doucet, ext.690	

Order Qty	B.O. Qty	Current Ship.	Item number	Description
1	0	1	DKC134-0060	Line 1 N° D3186-2M Spacepod Door RH U of M: Chaque B100038 Dwg. D3186 Rév.: E Serial # 48899 Lot # 48899

It is hereby certified that all materials, process and finished items were controlled and tested in accordance with the requirements of the purchase order and applicable specifications. All such records are on file at our plant and available for review upon request

Accepted by:

Quality department AQ-357

☐ Cust. ☐ Adm. ☐ Quality ☐ Ship.

Date: Mercredi, 2013-01-30 10:29:06
Utilisateur: Mario Chantal

Feuille de Procédé

4/28 Jan

Client	: DART US DART AEROSPACE	**Nom Dessin**	: SPACEPOD DOOR RH
Numéro Job	: 48899	**Numéro Article**	: DKC134-0060
Numéro	: 3769	**Numéro Dessin**	: –
Numéro B.A.	:	**Projet Numéro**	: DK-362
Cette fois	: 2013-01-30 **No.** :	**Révision dessin**	:
Prsht Rev.	: NC	**Matériel**	: 7781 & 411-350
Prem. fois	: - - **Type** :	**Date Dûe**	: 2013-02-25 **Qté:** 1 **Ud** UNITE
Job précédente	: 47641		

Écrit par : MK 4270

Vérifié & Approuvé par :

Commentaires : N° de dessin: D3186-2M rev. E

E.O.: N/A

Feuille de Procédé Rév.: 03 AMB0349 remplacé par AMB0511 (réf. RFC #226)

Formulaire d'inspection: N/A

Produit additionnel

Numéro Job:

# Séq.:	Machine ou	Description :
1.0	AAC1616	N° 83634, Frekote Loctite Wolo

Comment Qty.: 0.050 UNITE(s)/Unit Total : 0.050 UNITE(s)
N° 83634, Frekote Loctite Wolo N° de Lot: 1-37420-1

2.0	PRÉPARATION	Préparation du moule

Comment Setup: 0.00Hrs/ Run: 5.0000Min Total Run : 0.0833Hrs

Faire la préparation du moule N° DT 8006 selon IG 0009.

Date: 7/05/13 Sceau: 4440 CJ

3.0	AAC1885	Tissu à délaminer Release ply B

Comment Qty.: 3.28 VERGE(s)/Unit Total : 3.28 VERGE(s)
Tissu à délaminer Release ply B # de Lot: N/A

4.0	AAC1887	Wrightlon 5200 Bleu P3

Comment Qty.: 3.59 VERGE(s)/Unit Total : 3.59 VERGE(s)
Wrightlon 5200 Bleu P3 # de Lot: N/A

5.0	AC0885	Feutre de drainage N° Airweave N 10

Comment Qty.: 3.00 VERGE(s)/Unit Total : 3.00 VERGE(s)

Date: Mercredi, 2013-01-30 10:29:06
Utilisateur: Mario Chantal

Feuille de Procédé

Client: DART US - DART AEROSPACE **Nom Dessin:** SPACEPOD DOOR RH
Numéro Job: 48899 **Numéro** DKC134-0060

Numéro Job:

# Séq.:	Machine ou Opération:	Description :
6.0	AC0943	Stretchlon 200 poche à vide Vert
Comment	Qty.: 3.00 VERGE(s)/Unit Total : 3.00 VERGE(s)	
7.0	AMB0214	9.7 oz Weave "S" glass #FG-778150-125Y Volan Finish
Comment	Qty.: 4.5 VERGE(s)/Unit Total : 4.5 VERGE(s) 9.7 oz Weave "S" glass #FG-778150-125Y Volan Finish N° de Lot: 1-39576-1	
8.0	AC0886	Ruban à gommer jaune #: T/AT-200Y
Comment	Qty.: 2.2500 ROULEAU(s)/Unit Total : 2.2500 ROULEAU(s)	
9.0	AMB0511	N° TG-13-U, Fiberglass 13 oz
Comment	Qty.: 1.00 VERGE(s)/Unit Total : 1.00 VERGE(s) N° TG-13-U, Fiberglass 13 oz N° de Lot: 1-36302-1	
10.0	PREP-GENERAL	Préparation du matériel
Comment	Setup: 0.00Hrs/ Run: 30.0000Min Total Run : 0.5000Hrs	

Tailler le matériel selon les différents patrons de découpe.

Appliquer le ruban jaune tout le tour du stretchlon 200 en laissant le papier sur le coté non en contact avec le sac à vide.

Afin d'accélérer le processus de taillage, tailler les plis de 9.7 oz. tous en même temps en les superposants les uns sur les autres.

Date: 24/01/13 Sceau: 4440 CJ

11.0	AMB0286	Catalyst N° DDM-9
Comment	Qty.: 0.0080 GALLON(s)/Unit Total : 0.0080 GALLON(s) Catalyst N° DDM-9 N° de Lot: 1-27829-1	
12.0	AMB0212	Résine (411B7530) 411-350 promo. 75min.
Comment	Qty.: 0.500 LITRE(s)/Unit Total : 0.500 LITRE(s) Résine (411B7530) 411-350 promo. 75min. N° de Lot: 1-40544-1	
13.0	PREP-GENERAL	Préparation du matériel
Comment	Setup: 0.00Hrs/ Run: 5.0000Min Total Run : 0.0833Hrs	

Faire la préparation de la résine selon les quantitées requises, mix ratio 1.5% catalyst par quantité de résine.

Date: ~~25-01-13~~ 7/01/13 Sceau: DELASTEK COMPOSITES 65 ~~4435~~ 4440 C.J

Date: Mercredi, 2013-01-30 10:29:06
Utilisateur: Mario Chantal

Feuille de Procédé

Client: DART US DART AEROSPACE **Nom Dessin:** SPACEPOD DOOR RH
Numéro Job: 48899 **Numéro** DKC134-0060

Numéro Job:

# Séq.:	Machine ou Opération:	Description :
14.0	LAMINAGE	Faire le laminage

Comment Setup: 0.00Hrs/ Run: 15.0000Min Total Run : 0.2500Hrs

À l'aide d'un rouleau de 2" dia. appliquer une couche de résine sur le moule et ensuite imbiber un pli de tissu 9.7 oz.

Date: ~~25-04-13~~ 7/03/13 Sceau: DELASTEK COMPOSITES 65 ~~4435~~ 4440 C.J

15.0	BAGGING	Faire le bagging sur la pièce

Comment Setup: 0.00Hrs/ Run: 10.0000Min Total Run : 0.1667Hrs

Faire la poche à vide selon IG 0012.

Laisser sécher pendant 4 heures minimum.

Heure début Curing: 2:00 Heure Fin Curing: 8:00

Date: 7/03/13 Sceau: DELASTEK COMPOSITES 65 4440 C.J.

16.0	AMB0286	Catalyst N° DDM-9

Comment Qty.: 0.0120 GALLON(s)/Unit Total : 0.0120 GALLON(s)
Catalyst N° DDM-9 N° de Lot: 1-27529-1

17.0	AMB0212	Résine (411B7530) 411-350 promo. 75min.

Comment Qty.: 0.300 LITRE(s)/Unit Total : 0.300 LITRE(s)
Résine (411B7530) 411-350 promo. 75min N° de Lot: 1-40544-1

18.0	PREP-GENERAL	Préparation du matériel

Comment Setup: 0.00Hrs/ Run: 5.0000Min Total Run : 0.0833Hrs

Faire la préparation de la résine selon les quantitées requises, mix ratio 1.5% catalyst par quantité de résine et imbiber toutes les surfaces du Foam Core selon IG0105.

Date: 25-04-13 Sceau: 4435

19.0	DKC134-0057	Foam Core N° D3186-102 (Porte D3186-2)

Comment Qty.: 1 UNITE(s)/Unit Total : 1 UNITE(s)
Foam Core N° D3186-102 (Porte D3186-2) N° de Job: ~~51627~~ 52164

Form: rprocess

Date: Mercredi, 2013-01-30 10:29:06
Utilisateur: Mario Chantal

Feuille de Procédé

Client: DART US DART AEROSPACE **Nom Dessin:** SPACEPOD DOOR RH
Numéro Job: 48899 **Numéro** DKC134-0060

Numéro Job:

# Séq.:	Machine ou Opération:	Description :
20.0	AAC1611	Polybond B46F

Comment Qty.: 0.090 KIT(s)/Unit Total : 0.090 KIT(s)
Polybond B46F N° de Lot: 1-38189-1

21.0 ASSEMBLAGE — Assemblage mécanique

Comment Setup: 0.00Hrs/ Run: 15.0000Min Total Run : 0.2500Hrs

Retirez le bagging.

Pour aider au positionnement de 13 oz., positionner le gabarit de trimage dans le moule et tracer son contour sur le 9 oz. Retirez le gabarit de trimage.

Positionner le foam core à l'aide du gabarit prévu à cet effet et tracer le contour sur le 9 oz. (Vous devriez maintenant avoir 2 contours de tracé sur le 9 oz.)

Appliquer une couche de Polybond B64F à l'endos du Foam Core N° DKC134-0057 et positionner le foam Core sur le moule selon le dessin, et selon les lignes de positionnement prévues à cet effet.

Date: 14/05/13 Sceau: 4440 CS

22.0 BAGGING — Faire le bagging sur la pièce

Comment Setup: 0.00Hrs/ Run: 10.0000Min Total Run : 0.1667Hrs

Faire la poche à vide selon IG 0012.

Retirer le bagging avant la fin de la polymérisation (entre 1h et 1h30) afin d'enlever le surplus de Polybond.

Heure début Curing: 9:30 Heure Fin Curing: 11:00

Date: 14/05/13 sceau: 4440 CS

23.0 AMB0286 — Catalyst N° DDM-9

Comment Qty.: 0.0400 GALLON(s)/Unit Total : 0.0400 GALLON(s)
Catalyst N° DDM-9 N° de Lot: 1-27829-1

24.0 AMB0212 — Résine (411B7530) 411-350 promo. 75min.

Comment Qty.: 1.000 LITRE(s)/Unit Total : 1.000 LITRE(s)
Résine (411B7530) 411-350 promo. 75min N° de Lot: 1-40544-1

Form: mprocess

Date:. Mercredi, 2013-01-30 10:29:06
Utilisateur: Mario Chantal

Feuille de Procédé

Client: DART US DART AEROSPACE **Nom Dessin:** SPACEPOD DOOR RH
Numéro Job: 48899 **Numéro** DKC134-0060

Numéro Job:

# Séq.:	Machine ou Opération:	Description :
25.0	PREP-GENERAL	Préparation du matériel

Comment Setup: 0.00Hrs/ Run: 5.0000Min Total Run : 0.0833Hrs

Faire la préparation de la résine selon les quantitées requises, mix ratio 1.5% catalyst par quantité de résine.

Date: 17/05/13 Sceau: 4440 CJ

26.0	LAMINAGE	Faire le laminage

Comment Setup: 0.00Hrs/ Run: 30.0000Min Total Run : 0.5000Hrs

Faire le laminage d'un pli de 9.7 oz.

Faire le laminage d'un pli de 13 oz. tout le tour de la porte.

Faire le laminage d'un pli de 9.7 oz. Selon IF. DKC134-0017-5

DELASTEK R&D 13

Date: 17/05/13 Sceau: 4440 CJ 4460 ROL ml 17/05/13

27.0	BAGGING	Faire le bagging sur la pièce

Comment Setup: 0.00Hrs/ Run: 10.0000Min Total Run : 0.1667Hrs

Faire la poche à vide selon IG 0012.

Laissez Sécher 4 heures minimum

Heure début Curing:_____ Heure Fin Curing:_____

Date: 17/05/13 sceau: 4440 CJ

28.0	DÉMOULAGE	Démoulage de la pièce

Comment Setup: 0.00Hrs/ Run: 5.0000Min Total Run : 0.0833Hrs

Démouler la pièce en faisant bien attention aux coins & Edges.

Sabler la surfaces de la pièce qui était en contact avec le moule afin d'éliminer le fini lisse de celui-ci.

Date: 21/05/13 Sceau: 4440 CJ

Form: mmcess

Date: Mercredi, 2013-01-30 10:29:06
Utilisateur: Mario Chantal

Feuille de Procédé

Client: DART US DART AEROSPACE **Nom Dessin:** SPACEPOD DOOR RH
Numéro Job: 48899 **Numéro** DKC134-0060

Numéro Job:

# Séq.:	Machine ou Opération:	Description :
29.0	TRIMAGE	Trimage

Comment Setup: 0.00Hrs/ Run: 30.0000Min Total Run : 0.5000Hrs

Trimer le contour de la pièce à l'aide du gabarit de trimage prévu à cet effet.

Date: 24/05/13 Sceau: 4440 CJ 4460 R.L.

30.0	AAC1021	Dupont Primer N° 7704S

Comment Qty.: 0.1400 UNITE(s)/Unit Total : 0.1400 UNITE(s)
Dupont Primer N° 7704S N° de Lot: 1-39123-1

31.0	AAC1101	N° 7775S, Dupont Activator - Reducer Chromabase

Comment Qty.: 0.0283 UNITE(s)/Unit Total : 0.0283 UNITE(s)
N° 7775S, Dupont Activator - Reducer Chromabase N° de Lot: 1-37302-3

32.0	PRIMER	Application primer

Comment Setup: 0.00Hrs/ Run: 30.0000Min Total Run : 0.5000Hrs

Appliquer une couche de primer selon IG 0008.

DELABTEK 20 DELABTEK 32

Date: 29-05-13 Sceau: _____ # de fiche de mélange: 6412

33.0	AAC1492	N° P-15-3, Adtech Micro Ultra Filler

Comment Qty.: 0.010 GALLON(s)/Unit Total : 0.010 GALLON(s)
N° P-15-3, Adtech Micro Ultra Filler N° de Lot: 1-40936-1

34.0	FINITION	Finition Générale

Comment Setup: 0.00Hrs/ Run: 0.0000Min Total Run : 0.0000Hrs

Faire les réparations de finition si nécessaire à l'aide du "Filler" P15-3.

DELABTEK 1

Faire un léger sablage (Grit 220) de toutes les surfaces.

DELABTEK 59

~~Date: 31/05/13~~ sceau: _____ Date: 31/05/13 Sceau: 4433 MM

35.0	AAC1021	Dupont Primer N° 7704S

Comment Qty.: 0.1400 UNITE(s)/Unit Total : 0.1400 UNITE(s)
Dupont Primer N° 7704S N° de Lot: 1-39123-1

Mercredi, 2013-01-30 10:29:06

Utilisateur: Mario Chantal

Feuille de Procédé

Client: DART US DART AEROSPACE **Nom Dessin:** SPACEPOD DOOR RH

Numéro Job: 48899 **Numéro** DKC134-0060

Numéro Job:

# Séq.:	Machine ou Opération:	Description :
36.0	AAC1101	N° 7775S, Dupont Activator - Reducer Chromabase

Comment Qty.: 0.0300 UNITE(s)/Unit Total : 0.0300 UNITE(s)

N° 7775S, Dupont Activator - Reducer Chromabase N° de Lot: 1-37302-3

37.0 PRIMER — Application primer

20-06-13 6429

Comment Setup: 0.00Hrs/ Run: 0.0000Min Total Run : 0.0000Hrs

18-06-13 6426

Appliquer une couche de primer selon IG 0008.

Date: 31-05-13 Sceau: _____ # de Fiche de mélange: 6415

38.0 INSPEC FINAL — Inspection finale

Comment Setup: 0.00Hrs/ Run: 5.0000Min Total Run : 0.0833Hrs

Pièce rejetées primer n'adhère pas 19 juin 2013 ± NOK

Faire l'inspection finale par la qualité selon le dessin.

Date: 21 JUIN 13 Sceau: _____

39.0 EMBAL / ENTREPO — Emballage & Entreposage

Comment Setup: 0.00Hrs/ Run: 0.0000Min Total Run : 0.0000Hrs

Emballer et entreposer selon IG 0057.

Date: 21 JUIN 13 Sceau: 4451 SM

Form: rprocess